**ADLINK TECHNOLOGY INC.**
凌華科技股份有限公司
235 台北縣中和市建一路166號9樓
9F, No. 166 Jian Yi Road, Chungho City
Taipei, Taiwan
Tel: +886-2-8226-5877
Fax: +886-2-8226-5717
E-mail: service@adlinktech.com

**ADLINK TECHNOLOGY AMERICA, INC.**
8900 Research Drive
Irvine, CA 92618, U.S.A.
Toll Free: +1-866-4-ADLINK
Fax: +1-949-727-2099
E-mail: info@adlinktech.com

**ADLINK TECHNOLOGY SINGAPORE PTE LTD**
84 Genting Lane #07-02A
Cityneon Design Center, Singapore 349584
Tel: +65-6844-2261
Fax: +65-6844-2263
E-mail: singapore@adlinktech.com

**ADLINK TECHNOLOGY BEIJING**
（北京凌华）
中国北京市海淀区上地东路1号
盈创动力大厦E座8层西
邮政编码：100085
Tel: +86-10-5885-8666
Fax: +86-10-5885-8626
E-mail: beijing@adlinktech.com

**ADLINK TECHNOLOGY SHANGHAI**
（上海凌华）
中国上海市漕河泾高科技开发区钦江路
333号39幢4层
邮政编码：200233
Tel: +86-21-6495-5210
Fax: +86-21-5450-0414
E-mail: shanghai@adlinktech.com

**ADLINK TECHNOLOGY SHENZHEN**
（深圳凌华）
深圳市南山区登良路南油天安工业区3座1楼
邮政编码：518054
Tel: +86-755-2643-4858
Fax: +86-755-2640-3054
E-mail: shenzhen@adlinktech.com

ADLINK TECHNOLOGY INC.

All products and company names listed are trademarks or trade names of their respective companies.
All specifications are subject to change without further notice.

50-40103-0000

# Measurement and Automation

Advance Technologies; Automate the World

## Product Showcase

Vol. S6-I-I

- Data Acquisition Cards and Digitizers
- PXI/cPCI Platforms and Controllers
- GPIB/PCI/cPCI/PXI Interface Cards

ADLINK TECHNOLOGY INC.

PCI EXPRESS

ADLINK GREEN RoHS Compliant

http://www.adlinktech.com/TM

# Corporate Overview

ADLINK Technology is a leading platform provider of embedded computing, test & measurement, industrial automation, and communications solutions. Our mission is to provide superior quality and cost effective solutions for telecommunications, intelligent transportation systems, and electronic manufacturing industries.

ADLINK is an ISO-9001, ISO-14001, and TL9000 certified manufacturer. We maintain our leadership position in quality management by utilizing 6 Sigma statistical improvement tools. ADLINK has received several Taiwan Symbol of Excellence awards for its products, is a member of the Intel® Communications Alliance, and is also a prominent member of both PICMG and the PXI Systems Alliances. Our CTO, Jeff Munch, is chairman of the PICMG 3.0 committee.

## Corporate Mission

***Advance Technologies; Automate the World.***

ADLINK endeavors to advance the technologies in the fields of test & measurement, applied computing and automation.

We strive to provide superior quality and cost effective solutions for our partners around the world.

## Corporate Vision

To maintain our position as a world-class platform provider of communications, embedded computing, test & measurement, and automated solutions.

## Global Presence

Headquarterd in Taiwan, ADLINK has operations in America, Germany, India, Singapore, Beijing, Shanghai, and Shenzhen (China). ADLINK products are currently available in over 40 countries across 5 continents, with worldwide distribution networks and offices and over 600 employees. ADLINK is proud to be associated with many major technology leaders and Fortune 500 companies. With design and technology centers in the US and the Pacific Rim regions, ADLINK is becoming a technology-leading platform provider in the applied computing industry.

## RoHS-compliant products bring hazard-free computing

Total environment protection is one of ADLINK's corporate commitments. ADLINK is using all available resources to create products that comply with the Reduction of Hazardous Substances (RoHS) initiative and with ADLINK's Green Product Policy. Visit www.adlinktech.com for information on RoHS-compliant products and ADLINK environment policy.

# Scope of Business

Since our inception in 1995, we have acquired extensive knowledge and experience in the computer-based industrial applications field, enabling us to provide state-of-the-art computing products backed by professional consulting and OEM services for our customers. Our philosophy is to continuously provide our customers with the best products and technical support for a One-Stop service.

## Test & Measurement

ADLINK's test & measurement products are designed to enhance productivity and provide a competitive edge to our clients. Our products range from relay controls to high-speed signal capturing equipment and are available in ISA, PCI, cPCI, and PXI form factors. In addition, a variety of software drivers are available for these products to assist clients with rapid integration. Range of products include:

- PXI-based Instruments
- Data Acquisition
- Software Solutions

## Automation

We provide high performance motion control boards, frame grabbers, and real time remote I/O control solutions for semiconductor machinery, electronic assembly, and automated inspection equipment markets. Communication boards in different PC-based form factors and intelligent remote control modules provide easy-to-use solutions for factory automation. Range of products include:

- Motion Control
- Vision & Surveillance
- Remote I/O Modules
- GEME Embedded System

## Industrial Computing

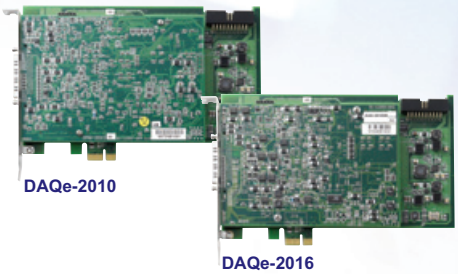
ADLINK is working closely with Intel® to ensure that we develop and introduce innovative computing technologies by implementing their embedded computing roadmaps and selecting computer solutions that best fit our target markets. This enables ADLINK to provide the highest quality and performance products with the long life cycles required by embedded and applied computing markets. Range of products include:

- AdvancedTCA Processor Blades and Platforms
- 6U CompactPCI Platforms and Boards
- 3U CompactPCI Platforms and Boards
- Computer-On-Modules
- Full-size/Half-size Single Board Computers
- Industrial Chassis and Sub-system

# Product Showcase

## *ADLINK launches PCI Express®-based simultaneous sampling DAQ cards*

Leading the way in industrial computing breakthroughs, ADLINK applies the advanced PCI Express® technology in its latest data acquisition card offerings. One of the most promising innovations to hit personal and industrial computers, PCI Express® delivers a reliable and high-bandwidth PCI interface for a wide range of test and measurement applications. ADLINK continuously creates products that are up-to-date with this and other emerging technologies. When migrating to PCI Express®, insist on ADLINK PCI Express® DAQ cards.



DAQe-2010

DAQe-2016

### Specifications

- PCI Express® x1 interface
- PCI Express® Specification r1.0a-compliant
- 4-channel simultaneous sampling differential inputs
- 2 MS/s sampling rate for DAQe-2010; 800 kS/s for DAQe-2016
- 14-bit A/D resolution for DAQe-2010; 16-bit for DAQe-2016
- Analog and digital triggers
- 2-channel analog outputs with 12-bit resolution and 1 MS/s with waveform generation function
- Multiple cards synchronization

## *Low-profile PCI card footprint solves space constraints*

Machine and automation equipments require space-saving system controllers that could fit in book-sized computers or 2U rack-mount IPCs. As regular, half-sized PCI control cards become too big for industrial platforms, ADLINK introduces a new series of low-profile PCI products that meet most industrial form factor requirements. These ergonomic cards support universal PCI slots (3.3 V/5 V) and are software-compatible with earlier cards bearing the same 4-digit product numbers. For more information, visit www.adlinktech.com to find an ADLINK representative nearest you.

**LPCI-9112**
16-CH, 110 kS/s, 12-bit multi-function DAQ card

**LPCI-7250**
8-CH relay outputs and 8-CH isolated DI card

**LPCI-7200S**
12 MB/s, high-speed 32-CH DI and 32-CH DO card

**LPCI-3488**
High-performance GPIB card

**LPCI-7230**
16-CH isolated DI and 16-CH isolated DO card

## *Highest density cards for large I/O requirements*

Compact industrial platforms, machine controllers, and large-scale test and measurement systems call for high-performance, multi-function and multi-channel cards. ADLINK understands the industry's need for high-density cards and offers a complete line versatile I/O cards for a full spectrum of applications.

**PCI-7442**
64-CH isolated DI and 64-CH isolated DO card, PCI

**DAQ-2208**
96-CH, 3 MS/s, 12-bit analog input card, PCI

**cPCI-7452**
128-CH isolated DI and 128-CH isolated DO module for 6U PXI/CompactPCI

**PXI-2208**
96-CH, 3 MS/s, 12-bit analog input module for PXI/CompactPCI

## PXIS-2700

**18-Slot 3U PXI/CompactPCI Instrument Chassis with 460W+460W Power Supply**

- PXI specifications Rev.2.2 compliant
- 32/64-bit PXI/CompactPCI bus
- One system slot and 17 PXI/CompactPCI peripheral slots
- Equipped with 460W+460W redundant power supply
- Built-in air filtered, hot swappable cooling fans
- Two PXI-to-PXI bridges
- Temperature, voltage and fan monitoring LEDs
- 4U high rack-mounted or bench-top installation

## PXIS-2670

**14-Slot 3U PXI/CompactPCI Instrument Chassis with 500W Power Supply**

- PXI specifications Rev. 2.2 compliant
- 32/64-bit PXI/CompactPCI bus
- One System slot and 13 PXI/CompactPCI peripheral slots
- Built-in air filtered, hot swappable cooling fans
- 500W ATX power supply
- Temperature, voltage and fan monitoring LED
- 4U high rackmount and benchtop installation

## PXIS-2600 Series

**8-Slot 3U PXI/CompactPCI Instrument Chassis with ATX Power and Optional LCD**

- PXI specifications Rev.2.2 compliant
- 32/64-bit PXI/CompactPCI bus
- One system slot and 7 PXI/CompactPCI peripheral slots
- Equipped with ATX 400W power supply
- Built-in filtered, hot swappable cooling fans
- Temperature, voltage and fan monitoring LEDs
- 4U high rack-mount and bench-top installation

## PXIS-2500 Series

**6-Slot 3U PXI/CompactPCI Instrument Chassis with Power Module and Optional LCD**

- PXI specifications Rev.2.2 compliant
- 32/64-bit PXI/CompactPCI bus
- One system slot and 5 PXI/CompactPCI peripheral slots
- Compact design for portable applications
- Modular AC or DC 250W power supply
- Built-in filtered cooling fans

## PXIS-2680P

**8-Slot 3U Integrated Portable Instrument Chassis with 300 W + 300 W AC Power supply**

- PXI specifications Rev. 2.2 compliant
- Design for portable instrument applications
- Accepts both 3U PXI and CompactPCI modules
- One system slot and 7 PXI/CompactPCI peripheral slots
- High brightness 15" TFT LCD display, 1024 x 768 resolution
- Multiple input devices including 108-key keyboard, touch pad and touch panel
- One built-in slim-type DVD combo drive
- Dual hot swappable 300 W ATX type mini-redundant power supplies

## PXIS-3320

**15-Slot 6U PXI/CompactPCI Instrument Chassis with 500W Hot Swappable Power Supply**

- PXI specifications Rev. 2.2 Compliant
- Accepts both 6U PXI and CompactPCI modules
- One system slot and 14 PXI/CompactPCI peripheral slots
- 2 or 4 hot swappable 250W power supply with Universal AC input
- Temperature, voltage and fan monitoring LED
- 9U high rackmount and benchtop installations
- Two PXI-to-PXI bridges

## PXI-3800

**3U PXI Intel® Pentium® M System Controller with VGA/GbE/CF**

- PICMG 2.1 CompactPCI specifications R3.0 compliant
- PXI specifications Rev. 2.2 compliant
- Pentium® M processor, FSB 400 MHz, CPU frequency up to GHz
- Two 200-pin DDR SO-DIMM sockets, supports up to 2 GB RAM
- VGA display up to 2048 x 1536 resolution, 3D graphic visual enhancement
- One 10/100/1000 Mb Ethernet port
- One trigger I/O on the front panel for advanced PXI trigger function
- Built-in 2.5" low profile HDD, two USB2.0 ports, two CompactFlash interfaces, two serial ports and AC'97 stereo audio output

## PXI-3710

**3U PXI Intel® Pentium® III System Controller with VGA/DVI/Ethernet/CF**

- PXI specifications Rev.2.0 compliant
- Pentium-III 1.26GHz CPU
- Two 144-pin SO-DIMM sockets support up to 512MB RAM
- Built-in 2.5" low profile HDD and optional slim type floppy drive module
- One internal 44-pin EIDE and one 40-pin EIDE on front panel for CD-ROM or HDD connection
- Two CompactFlash sockets: Internal CF1 socket is connected to IDE interface.
- The CF2 socket on the front panel is connected to a USB interface and supports plug and play
- Built-in VGA of Intel 815E AGP with resolution up to 1600x1200
- DVI transmitter supports up to 165M pixels/sec through the rear I/O module

## PCI-8570/PXI-8570

**64-Bit, 66MHz PCI-to-PXI, PXI-to-PXI Extension**

- Direct PC control of PXI/CompactPCI systems
- Multi-chassis configurations for PXI/CompactPCI
- Up to 2 PCI segments from single 8570
- Up to 64-bit, 66MHz PCI bus extension, 528MB/s peak
- Shielded copper cabling, 10m max. distance
- Completely hardware and software transparent
- Independence of operating systems

# System Product

## DAQStreaming

**High-speed Data Recording System**

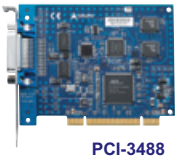
- Windows-based turnkey system for capturing and recording signals
- Up to 40 MB/s real-time data recording throughput
- Extended recording time at maximum data rate
- Multiple data acquisition modules
  - 4-CH, 20MS/s DAQ device for high-speed analog signals
  - 8-CH, 2MS/s DAQ device for simultaneous analog signals
- C-like API to manage recorded data
- Complete software architecture for customized data processing
- Portable, PXI and IPC platforms available

# Bus Interface Products

## PCI-3488/LPCI-3488/PXI-3488

**High-performance IEEE488 GPIB Interface**

- Fully compatible with IEEE 488 standard
- Support a 32-bit 3.3V or 5V PCI bus
- On-board 1KB FIFO for read/write operations
- Provides driver APIs compatible with NI-488.2* driver software
- Supports industrial-standard VISA library
- Interactive utility for testing and diagnostics



PCI-3488

LPCI-3488

PXI-3488

## PCIS-8580-4S/PCIS-8580-13S

**4-Slot/13-Slot PCI-to-PCI Extension System**

- Provides 4/13 extended PCI slots
- Full 32-bit/33MHz PCI bandwidth extension (132MB/s)
- Maximum 10m extension distance
- 24-pin DVI-D connector for robust connectivity
- Built-in 200W power supply (PCIS-8580-4S) and 400W power supply (PCIS-8580-13S)

* NI is a registered trademark of National Instruments, Inc.

## cPCI-8312H

CompactPCI PXI

**6U CompactPCI SSCNet II 12-Axis Motion Control Card with HSL Network**

- Servo Interface: SSCNET II protocol
- On-board DSP: TI 100MHz, enhanced control capability
- Maximum controllable axes: 12
- DA closed-loop control x 2 and 2 pulse output channels for steppers
- High Speed Link protocol with dual network ports
- Transmission rate: 3/6/12Mbps selectable; Full duplex/Half Duplex Mode support

## cPCI-8168

CompactPCI PXI

**6U CompactPCI 8-Axis Motion Control Card**

- Pulse output rate up to 6.5 MHz
- Pulse output options: OUT/DIR, CW/CCW
- 2-4 axes linear interpolation
- 2 axes circular interpolation
- Multi-axis continuous interpolation
- Programmable acceleration and deceleration time

## PXI-8164

PXI CompactPCI

**Advanced 4-Axis Stepping & Servo Motion Control Card**

- Pulse output rate up to 6.55 MHz
- Pulse output options: OUT/DIR, CW/CCW
- 2-4 axes linear interpolation
- 2 axes circular interpolation
- Multi-axis continuous interpolation
- Position/speed change on-the-fly

## cRTV-24/44

CompactPCI PXI

**CompactPCI 4 Channels Real-time Video Capture Board**

- Four color video digitizers operating in parallel
- Up to 120fps in 64-bit, 66MHz CompactPCI bus
- Color PAL / NTSC, monochrome CCIR / EIA camera support
- On-board TTL I/O lines
- Protection circuit for security issue
- Channel status report LEDs

## cPCI-3544

CompactPCI PXI

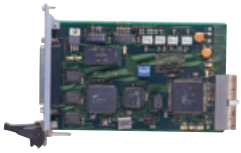
**4-Port Serial Communications Module**

- CompactPCI PICMG 2.0 Rev 2.1
- Four RS-422/485 ports with intelligent buffer, 2500 $V_{RMS}$ isolation
- Suitable for modems, data display, data collection, telecommunication
- Multiple OS support
- Only support CompactPCI interface 5V V(I/O)

## cPCI-3534/3538

CompactPCI PXI

**4/8-Port Serial Communication Module**

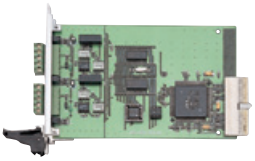


- CompactPCI PICMG 2.0 Rev 2.1
- Three RS-232 ports and one isolated RS-422/485 port with 2500$V_{RMS}$ isolation (cPCI-3534)
- 8-Port RS-232 (cPCI-3538)
- Multiple OS support
- Surge protector in TXD/RXD signal line

## cPCI-7841

CompactPCI PXI

**Dual-Port Isolated CAN Interface Card**



- CompactPCI PICMG 2.0 R 2.1 compliant
- Two independent CAN network
- Up to 1 Mbps programmable transfer rate
- 16MHz CAN controller frequency
- 2500$V_{RMS}$ optical isolation
- Direct memory mapping to the CAN controllers
- PCI bus plug and play
- Only support CompactPCI interface 5V V(I/O)

## cPCI-8211/8211R

CompactPCI PXI

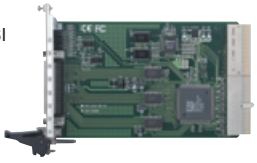
**3U CompactPCI Ethernet Module**

- CompactPCI PICMG 2.0 R 2.1 compliant
- Built-in Intel 82559 LAN chip
- Supports 10/100Base-TX Ethernet standard
- IEEE 802.3u Ethernet Specification compliant
- Uses front panel RJ45 connector
- Rear I/O available on cPCI-8211R

## cPCI-8212/8212R

CompactPCI PXI

**3U CompactPCI SCSI Module**

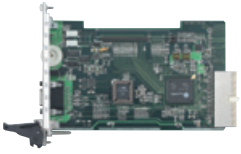


- CompactPCI PICMG 2.0 R 2.1 compliant
- SCSI-I, Fast SCSI, Ultra SCSI, Wide Ultra SCSI, Wide Ultra II SCSI
- Speed up to 80MB/s in Wide Ultra II SCSI
- External 68-pin SCSI-3
- Rear I/O available on cPCI-8212R

## cPCI-8217/ 8217R

CompactPCI PXI

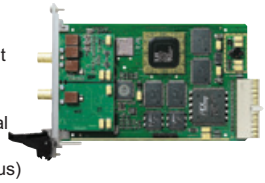
**3U CompactPCI VGA/LCD Interface Module with Rear I/O Option**



- SMI Lynx3DM SM721, VGA/ LCD controller with built-in 4M VRAM
- Switch for LCD backlight inverter on/ off
- Supports external CRT with front panel VGA connector
- Supports LCD with internal LCD connector and J2 rear I/O
- Hi-color display up to 1600x1200
- Rear I/O available on cPCI-8217R

## PXI-9710

**1-CH 500MS/s 8-Bit High-Speed Digitizer**



- 500MS/s sampling rate with internal or external timebase
- Wide 250MHz -3dB bandwidth
- User selectable 50Ω and 1MΩ input impedance
- 8MB on-board sample memory
- Software programmable input signal ranges: 50mV - 5V
- 1GHz auto-synchronous-bus (ASBus) for trigger and clock distribution between modules
- Full front-end amplification with internal calibration
- Single slot, 3U CompactPCI compliant and PXI compatible

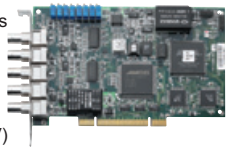
## PCI-9820, PXI-9820

**2-CH 65MS/s 14-Bit High Speed Digitizer**

- Supports Universal 32-bit 3.3V and 5V PCI bus
- Up to 60MS/s with internal timebase
- 2-CH single-ended bipolar input
- On-board SDRAM up to 512MB
- Analog and digital trigger
- Full auto calibration
- Multiple cards synchronization

## PCI-9812/9812A/9810

**4-CH 10/12-Bit 20MS/s Simultaneous Sampling Analog Input Cards**



- Sampling rate up to 20MS/s
- 4 single-ended simultaneous input channels with independent 4 A/Ds
- 12-bit A/D on 9812, 10-bit A/D on 9810
- On-board 32 k-sample A/D FIFO(PCI-9810/9812) and 128 k-sample A/D FIFO (PCI-9812A)
- Bipolar signal input range (+/-5V, +/-1V)
- Five A/D trigger modes: software trigger, Pre-trigger, Post-trigger, Middle-trigger and Delay-trigger
- Programmable sampling rate

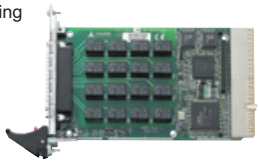
## SM2060/2040 series

**PCI/PXI 7-1/2, 6-1/2 Digital Multimeter**

- Flexible, full-featured auto-ranging DMM
- DC & AC Volts & Current, 2-Wire and 4-Wire Ohms
- AC True RMS Measurements, 10 Hz to 100 kHz
- Measure 1 µV to 330 V
- Self-calibrating
- Up to 1000 rps
- Frequency counter 1 Hz to 300 kHz

## PXI-7901

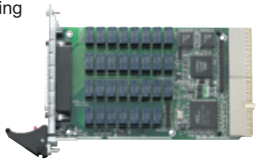
**16-CH General-Purpose SPDT Relay Module**



- PXI specifications Rev. 2.2 compliant
- 16-CH SPDT (1 Form C) nonlatching relays
- Switching capacity
- 3 A switching, 3 A carrying
- 220 $V_{DC}$, 250 $V_{AC}$
- 125 operations per second for full setting
- On-board 1k-sample scan list for deterministic scanning
- Handshaking signals for external instruments synchronization
- Multiple modules synchronization through PXI trigger bus and star trigger

## PXI-7921

**24-CH 2-Wire Multiplexer/Matrix Module**



- PXI specifications Rev. 2.2 compliant
- 24-CH DPDT (2 Form C) nonlatching relays
- Switching capacity
- 2 A switching, 2 A carrying
- 220 $V_{DC}$, 125 $V_{AC}$
- On-board 1k-sample scan list for deterministic scanning
- Handshaking signals for external instruments synchronization
- Multiple cards synchronization through PXI trigger bus and star trigger

## PXI-7931

**4x8 2-Wire Matrix Module**

- PXI specifications Rev. 2.2 compliant
- Configuration determined by termination board
- Up to 32 cross-point DPDT (2 Form C) nonlatching relays
- Switching capacity
- 2 A switching, 2 A carrying
- 220 $V_{DC}$, 125 $V_{AC}$
- On-board 1k-sample scan list for deterministic scanning
- Handshaking signals for external instruments synchronization
- Multiple cards synchronization through PXI trigger bus and star trigger

## TE-5201

**100 MS/s Arbitrary Waveform Generator**

- 100 MS/Sec clock with 10 digits resolution
- Multiple instrument synchronization
- 14-bit vertical resolution
- 2 MS memory depth
- Ultra fast waveform downloads using DMA
- Internal trigger generation
- Sequence generator
- Frequency agility: FSK, Ramped FSK, sweep, FM

## DAQ-2016, DAQe-2016, PXI-2016

**4-CH 16-Bit 800kS/s Simultaneous Sampling Multi-Function Card**

- Sampling rate up to 800 kS/s
- 4-CH simultaneous sampling 16-bit A/D
- Analog and digital trigger
- 2-CH 12-bit 1Ms/s analog outputs with waveform generation functionality
- Bus-mastering DMA with scatter-gather technology
- Full auto calibration
- Multiple cards synchronization

## DAQ-2010, DAQe-2010, PXI-2010

**4-CH 2MS/s 14-Bit Simultaneous Sampling Multi-Function Card**

- Sampling rate up to 2MS/s
- 4-CH simultaneous sampling 14-bit A/D
- Analog and digital trigger
- 2-CH 12-bit 1MS/s analog outputs with waveform generation functionality
- Bus-mastering DMA with scatter-gather technology
- Full auto calibration
- Multiple cards synchronization

## DAQ-2005, PXI-2005

**4-CH 500kS/s 16-Bit Simultaneous Sampling Multi-Function Card**

- Sampling rate up to 500kS/s
- 4-CH simultaneous sampling 16-bit A/D
- Analog and digital trigger
- 2-CH 12-bit 1MS/s analog outputs with waveform generation functionality
- Bus-mastering DMA with scatter-gather technology
- Full auto calibration
- Multiple cards synchronization

## DAQ-2006, PXI-2006

**4-CH 250kS/s 16-Bit Simultaneous Sampling Multi-Function Card**

- Sampling rate up to 250kS/s
- 4-CH simultaneous sampling 16-bit A/D
- Analog and digital trigger
- 2-CH 12-bit 1MS/s analog outputs with waveform generation functionality
- Bus-mastering DMA with scatter-gather technology
- Full auto calibration
- Multiple cards synchronization

## DAQ-2208, PXI-2208

**96-CH 12-Bit 3 MS/s Ultra High Density Analog Input Card**

- 12-bit A/D and sampling rate up to 3MS/s
- 96-CH single-ended or 48-CH differential inputs
- 1024-configuration channel-gain queue
- Analog and digital trigger
- Bus-mastering DMA with scatter-gather technology
- Full auto calibration
- Multiple cards synchronization

## DAQ-2204, PXI-2204

**64-CH 3MS/s 12-Bit Multi-Function Card**

- 12-bit A/D and sampling rate up to 3MS/s
- 64-CH single-ended or 32-CH differential input
- 512-configuration channel-gain queue
- Analog and digital trigger
- 2-CH 12-bit 1MS/s analog outputs with waveform generation functionality
- Bus-mastering DMA with scatter-gather technology
- Full auto calibration
- Multiple cards synchronization

## DAQ-2205, PXI-2205

**64-CH 500kS/s 16-Bit Multi-Function Card**

- 16-bit A/D and sampling rate up to 500kS/s
- 64-CH single-ended or 32-CH differential input
- 512-configuration channel-gain queue
- Analog and digital trigger
- 2-CH 12-bit 1MS/s analog outputs with waveform generation functionality
- Bus-mastering DMA with scatter-gather technology
- Full auto calibration
- Multiple cards synchronization

## DAQ-2206, PXI-2206

**64-CH 250kS/s 16-Bit Multi-Function Card**

- 16-bit A/D and sampling rate up to 250kS/s
- 64-CH single-ended or 32-CH differential input
- 512-configuration channel-gain queue
- Analog and digital trigger
- 2-CH 12-bit 1MS/s analog outputs with waveform generation functionality
- Bus-mastering DMA with scatter-gather technology
- Full auto calibration
- Multiple cards synchronization

## DAQ-2501, PXI-2501

**4-CH 1MS/s 12-Bit Analog Output Multi-Function Card**

- 4-CH 12-bit 1MS/s analog outputs with waveform generation functionality
- 8-CH 14-bit A/D and sampling rate up to 400kS/s
- Bus-mastering DMA with scatter-gather technology
- Full auto calibration
- Multiple cards synchronization

## DAQ-2502, PXI-2502

**8-CH 1MS/s 12-Bit Analog Output Multi-Function Card**

- 8-CH 12-bit 1MS/s analog outputs with waveform generation functionality
- 4-CH 14-bit A/D and sampling rate up to 400kS/s
- Bus-mastering DMA with scatter-gather technology
- Full auto calibration
- Multiple cards synchronization

## DAQ-2213/2214

**16-CH 250kS/s 16-Bit Low-Cost Multi-Function Card**

- 16-bit A/D and sampling rate up to 250kS/s
- 16-CH single-ended or 8-CH differential inputs
- 512-configuration channel-gain queue
- Analog and digital trigger
- 2-CH 12-bit 1MS/s analog outputs with waveform generation functionality (DAQ-2214)
- Bus-mastering DMA with scatter-gather technology
- Full auto calibration
- Multiple cards synchronization

## cPCI-9116/9116R

**64-CH 250kS/s 16-Bit Multi-Function Card**

- 16-bit A/D and sampling rate up to 250kS/s
- 64-CH single-ended or 32-CH differential input
- 512-configuration channel-gain queue
- On-board 1K-sample FIFO
- Jumperless and software configurable
- Software polling, interrupt and bus-mastering DMA data transfer available
- Rear I/O available on cPCI-9116R

## PCI-9118/L Series

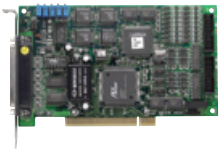
**16-CH 12/16 Bit Up to 333kS/s Analog Input Cards**

- Supports a 32-bit 5 V PCI bus
- 12-bit A/D resolution (PCI-9118DG/L & PCI-9118HG/L)
- 16-bit A/D resolution (PCI-9118HR/L)
- Up to 333 kS/s sampling rate (PCI-9118DG/L & PCI-9118HG/L)
- Up to 100 kS/s sampling rate (PCI-9118HR/L)
- 16 single-ended or 8 differential inputs
- 256-configuration channel-gain queue
- On-board 1 k-sample A/D FIFO
- Bipolar or Unipolar analog input ranges

## PCI-9114 Series

**32-CH 16-Bit High Resolution Multi-function DAQ Cards**

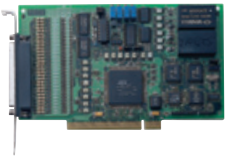
- 32-CH single-ended or 16-CH differential inputs
- 16-bit A/D and sampling rate up to 250kS/s
- Bipolar analog input ranges
- On-board 1K-sample FIFO
- Programmable gains of x1, x10, x100 for 9114HG/9114A-HG
- Programmable gains of x1, x2, x4, x8 for 9114DG/9114A-DG
- 16 isolated digital inputs, 16 isolated digital outputs



## PCI-9113A

**32-CH Isolated Analog Input Card**

- 32-CH single-ended or 16-CH differential inputs
- 12-bit A/D and sampling rate up to 100kS/s
- Programmable gains of x1, x10, x100
- On-board 1K-sample FIFO
- On-board low pass filter for signal conditioning or attenuation
- 2500$V_{RMS}$ optical isolation
- Bipolar or unipolar analog input ranges



## PCI-9112, PCM-9112+, cPCI-9112/9112R, LPCI-9112

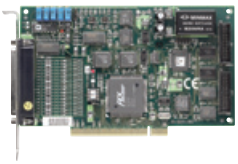
**16-CH 12-Bit Advanced Multi-function DAQ Card**

- 12-bit A/D and sampling rate up to 110kS/s
- 16-CH single-ended or 8-CH differential inputs
- On-board A/D FIFO
- Bipolar or unipolar analog input ranges
- Programmable gains of x0.5, x1, x2, x4, x8
- 16-CH digital inputs and 16-CH digital outputs
- 2-CH 12-bit multiplying analog outputs
- Rear I/O available on cPCI-9112R

## PCI-9111 Series

**100KHz Low Cost Multi-function DAQ Cards**

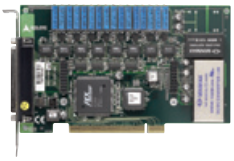
- 12-bit A/D on 9111DG, 16-bit A/D on 9111HR
- Sampling rate up to 100kS/s
- 16-CH single-ended inputs
- On-board 1K-sample FIFO
- Bipolar analog input ranges and programmable gains of x1, x2, x4, x8, x16
- 1-CH 12-bit multiplying analog output
- 16-CH digital inputs and 16-CH digital outputs



## PCI-6208V/6208A/6216V, cPCI-6208V/6208A/6216V

**8/16-CH 16-Bit Analog Output Cards**

- 8-CH, 16-bit voltage outputs on 6208V
- 16-CH, 16-bit voltage outputs on 6216V
- 8-CH, 16-bit voltage and current outputs on 6208A
- Bipolar voltage output range
- Programmable current output ranges on 6208A: 0~20mA, 4~20mA, 5~25mA
- 4-CH DI, 4-CH DO
- Rear I/O available on cPCI-6216VR



## PCI-6308V/ 6308A, PCM-6308V+

**Isolated 8-CH 12-Bit Analog Output Cards**

- Isolated 8-CH 12-bit voltage output
- 2500$V_{RMS}$ optical isolation
- Jumper selectable bipolar and unipolar output ranges
- Settling time 16msec from -10V~+10V
- 4-CH isolated digital input and 4-CH isolated digital output
- Current output version available on PCI-6308A

## PCI-7300A, cPCI-7300

**80MB/s Ultra-High Speed 32-CH Digital I/O Card**

- Multiple I/O port configurations: 16-CH DI & 16-CH DO, 32-CH DI or 32-CH DO
- Data transfer rate up to 80Mbytes/s
- On-board internal timer pacer for clocked DIO
- On-board 32K-word FIFO
- ACK and REQ signals for handshaking data transfer
- Bus-mastering DMA with scatter-gather technology

## PCI-7200, cPCI-7200, LPCI-7200

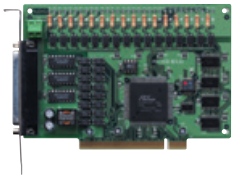
**12MB/s High Speed 32-CH DI, 32-CH DO Card**

- 32-CH digital inputs and 32-CH digital outputs
- Data transfer rate up to 12Mbytes/s
- On-board internal timer pacer for clocked DIO
- ACK and REQ signals for handshaking data transfer
- Bus-mastering DMA data transfer
- Multiple interrupt source

## PCI-7230, PCM-7230+, cPCI-7230, LPCI-7230

**Isolated 16-CH DI and 16-CH DO Card**

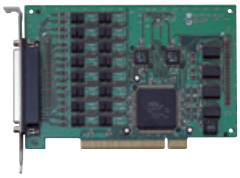
- 16-CH Isolated digital inputs, 16-CH Isolated digital outputs
- 5000Vrms optical isolation(PCI-7230)
- Sink current up to 500mA on each isolated output
- Isolated input voltage up to 24V
- Two external interrupt sources



## PCI-7233/7234/7234P

**Isolated 32-CH DI/DO Card**

- 32-CH isolated digital inputs (PCI-7233)
- 32-CH isolated digital outputs (PCI-7234/7234P)
- 2500$V_{RMS}$ optical isolation (PCI-7234/7234P)
- Isolated input voltage up to 24V (PCI-7233)
- Interrupt source from change-of-state detection (PCI-7233)
- Sink current up to 500mA on each isolated output (PCI-7234)



## PCI-7224/7248/7296, PCM-7248+, cPCI-7248

**Opto-22 Compatible 96/48/24-CH DIO Cards**

- 96/48/24-CH TTL/DTL digital inputs/outputs
- Emulates 4/2/1 industry standard 8255 PPI (mode 0)
- Direct interface with OPTO-22 compatible I/O modules
- Output port status read back
- On board 8254 timer/counter chip
- Programmable interrupt source
- Provides 12V and 5V power supply to OPTO-22 connectors

## cPCI-7452

**128-CH Isolated DI & 128-CH Isolated DO Module**

- 128-CH isolated digital inputs and 128-CH isolated digital outputs
- Isolated input voltage up to 28V
- Isolation voltage up to 2,500$V_{RMS}$
- Sink current up to 300mA on each isolated output
- Change-of-status (COS) interrupt on digital inputs

## cPCI-7442

**128-CH Isolated DI & 128-CH Isolated DO Module**

- Supports a 32-bit 3.3V or 5V PCI bus
- 64-CH isolated digital inputs and 64-CH isolated digital outputs
- Isolation voltage up to 1,250VRMS channel-to-system
- Sink Current up to 300mA on all isolated output enabled
- Isolated input voltage up to 28VDC
- 64-CH DI change-of-state (COS) interrupt
- Digital output value retained after hot system reset
- 32-CH TTL digital I/O lines

## PCI-7260

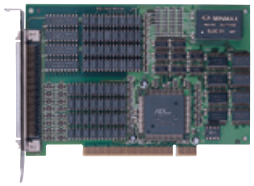
**8-CH High Power Relay Card**

- Support Universal 32-bit 3.3V and 5V PCI bus
- 8-CH high power relay outputs
  - 5A at 250$V_{AC}$
  - 5A at 30$V_{DC}$
- 8-CH isolated digital inputs
- Pluggable connector for high current input
- Initial and safety status setting by DIP switches
- Built-in watchdog timer

## PCI-7432, cPCI-7432, cPCI-7432R

**Isolated 32-CH DI and 32-CH DO Cards**

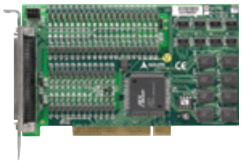
- Isolated 32-CH digital inputs & 32-CH digital outputs
- 2500$V_{RMS}$ optical isolation
- Sink current up to 500mA on each isolated output
- Isolated input voltage up to 24V
- Two external interrupt sources
- Rear I/O available on cPCI-7432R



## PCI-7433, cPCI-7433, cPCI-7433R

**Isolated 64-CH DI Cards**

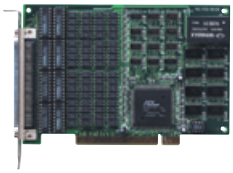
- Isolated 64-CH digital inputs
- 2500$V_{RMS}$ optical isolation
- Isolated input voltage up to 24V
- Two external interrupt sources
- Rear I/O available on cPCI-7433R



## PCI-7434, cPCI-7434, cPCI-7434R

**Isolated 64-CH DO Cards**

- Isolated 64-CH digital outputs
- 2500$V_{RMS}$ optical isolation
- Sink current up to 500mA on each isolated output
- Rear I/O available on cPCI-7434R



## PCI-7396/7348

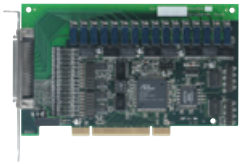
**High Driving Capability 96/48-CH DIO Cards**

- 96/48-CH TTL compatible digital inputs/outputs
- High driving capacity up to 48mA (sink) and 15mA(source)
- Programmable port configuration as input or output
- Output port status read back
- On board 8254 timer/counter chip
- Change-of-status (COS) interrupt on digital inputs
- Programmable interrupt sources

## PCI-7256

**16-CH Latching Relay & 16-CH Isolated DI Cards**

- Supports Universal 32-bit 3.3V and 5V PCI bus
- 16-CH latching relay outputs
- Power saving on relay actuation
- Output status unchanged when power-off
- LED indicators for relay status
- 16-CH isolated digital inputs
- Change-of-status (COS) interrupt on digital inputs



## PCI-7258

**32-CH PhotoMOS Relay Output and 2-CH Isolated DI Cards**

- Supports Universal 32-bit 3.3V and 5V PCI bus
- 32-CH Form A long life PhotoMOS relay outputs
- 2-CH isolated digital input with interrupt function
- Short switch ON/Off time
- Low power consumption
- LED indicators for relay status
- Support external LED connection

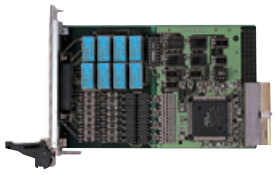
## PCI-7250/7251, LPCI-7250

**8/16/24/32-CH General Purpose Relay Output & Isolated DI Cards**

- Supports 32-bit 5V PCI bus
- 8-CH relay outputs on PCI-7250/ PCM-7250+/cPCI-7252
- 8-CH isolated digital inputs
- LED indicators for relay status
- Jumper Selectable for AC/DC isolated input
- PCI-7250 extendable up to 32-CH relay outputs & 32-CH DI with three PCI-7251

## cPCI-7252

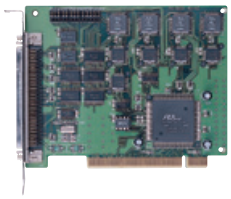
**8-CH Relay Outputs & 16-CH Isolated DI Module**



- 8-CH SPDT relays
- Nonlatching relays
- Onboard relay driving circuits
- Relay output status read back
- 16-CH isolated digital inputs
- Onboard low-pass filtering for digital inputs
- Dual programmable interrupt sources

## PCI-8554, cPCI-8554

**10-CH Counter Timer & DIO Modules**



- Four 82C54 Timer/Counter chips
- 10 independent 16-bit down counters
- 2 Cascaded counters based on 8 MHz system clock
- Programmable clock sources for every counter
- De-bounce filter for external clock inputs and external interrupt signal
- General purpose 8-CH TTL DI & 8-CH TTL DO
- Rear I/O available on cPCI-8554R

## USBDAQ-9100-MS

**USB Multi-function DAQ Module**

- USB Specification 1.1 Compliant
- 12-bit A/D and sampling rate up to 500kS/s
- 8-CH differential analog inputs
- 2 sets of 4-CH Simultaneous sampling analog inputs
- On board 4K-sample FIFO
- 2-CH 12-bit monolithic multiplying analog outputs with waveform generation functionality
- Two 16-bit general-purpose timer/counter
- 8-CH isolated digital inputs and 8-CH isolated digital outputs
- Full auto calibration

## ACL-8316L/8312L

**16-CH 16/12-Bit 100kS/s Multi-Function DAQ Cards**

- Up to 16-bit A/D resolution
- Up to 100kS/s sampling rate
- 16-CH single-ended or 8-CH differential inputs
- DMA transfer for analog inputs
- Programmable gains

## ACL-8216

**16-CH 12-Bit 100kS/s Multi-Function DAQ Card**

- 16-bit A/D resolution
- Up to 100kS/s sampling rate
- 16-CH single-ended or 8-CH differential inputs
- DMA transfer for analog inputs
- Programmable gains

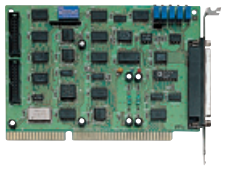
## ACL-8112 Series

**16-CH 16/12-Bit 100kS/s Multi-Function DAQ Cards**

- 12-bit A/D resolution
- Up to 100kS/s sampling rate
- 16-CH single-ended or 8-CH differential inputs
- DMA transfer for analog inputs
- Programmable gains

## ACL-8111

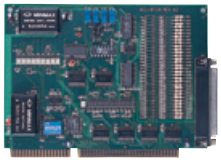
**8-CH 12-Bit 50 kS/s Low Cost Multi-Function DAQ Card**



- 12-bit A/D resolution
- Up to 50 kS/s sampling rate
- 8-CH single-ended inputs
- Programmable IRQ level for A/D data transfer
- Programmable gains

## ACL-8113A

**32-CH 12-Bit 30 kS/s Isolated Analog Input Card**



- 12-bit A/D resolution
- Up to 30 kS/s sampling rate
- 32-CH single-ended inputs
- Programmable gain
- 2500$V_{RMS}$ optical isolation

## ACL-6126

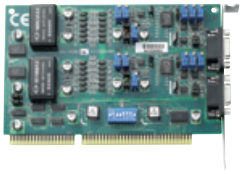
**6-CH 12-Bit Analog Output Card**

- 12-bit D/A resolution
- 6-CH voltage outputs
- 6-CH current outputs
- Bipolar or Unipolar analog output ranges
- 16-CH TTL digital inputs & 16-CH TTL digital outputs

## ACL-6128A

**2-CH 12-Bit Isolated Analog Output Card**

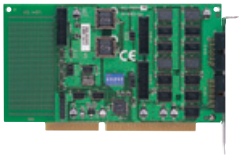
- 2-CH 12-bit multiplying analog outputs
- Bipolar or unipolar voltage output ranges
- Unipolar current output ranges
- 2500$V_{RMS}$ optical isolation
- Compact, half-size PCB



## ACL-7120A/6

**32-CH DIO & Timer/Counter Card**

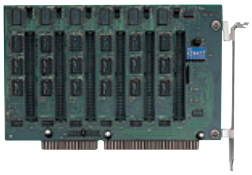
- 32-CH TTL digital inputs and 32-CH TTL digital outputs
- High output driving capacity
- 3 independent programmable 16-bit down counters
- One 16-bit event counter for interrupt generation
- One cascaded 32-bit timer with a 4 MHz timebase



## ACL-7122

**Opto-22 Compatible 144 DIO Card**

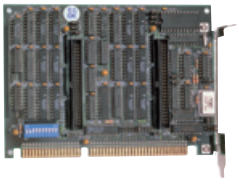
- High-density 144-CH digital inputs/outputs
- TTL/DTL compatible digital I/O channels
- Direct interface with OPTO-22 compatible I/O modules
- Buffered circuits for high driving capacity
- Programmable interrupt handling



## PET-48DIO

**Opto-22 Compatible 48 DIO Card**

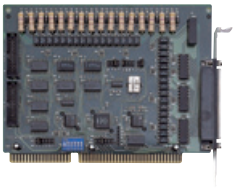
- High-density 48-CH digital inputs/outputs
- TTL/DTL compatible digital I/O channels
- Direct interface with OPTO-22 compatible I/O modules
- Buffered circuits for high driving capacity
- Programmable interrupt handling



## ACL-7130

**16-CH Isolated DI & 16-CH Isolated DO Card**

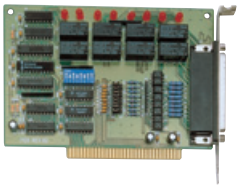
- 16-CH isolated digital inputs and 16-CH isolated digital outputs
- 2500$V_{RMS}$ optical isolation
- Sink current up to 500 mA on each isolated output
- 16-CH TTL digital inputs and 16-CH TTL digital outputs
- Two external interrupt sources



## ACL-7125

**8-CH Relay Outputs & 8-CH Isolated DI Card**

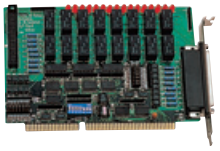
- 4-CH SPDT (Form C) and 4-CH SPST (Form A) relays
- Non-latching relays
- On-board relay driving circuits
- On-board LED indicators for relay status
- 8-CH isolated digital inputs



## ACL-7225

**16-CH Relay Outputs & 16-CH Isolated DI Card**

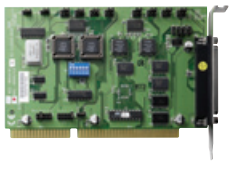
- 8-CH SPDT (Form C) & 8-CH SPST (Form A) relays
- Non-latching relays
- On-board LED indicators for relay status
- On-board relay driving circuits
- 16-CH isolated digital inputs



## ACL-8454/12

**8-CH 16-Bit Counters, 2-CH 32-Bit Timer & Digital I/O Card**

- 8-CH timers/counters
- 2-CH cascaded 32-bit timer with 1 MHz base clock
- On-board multiple base clocks ranging from 100 kHz to 2 MHz
- External gate control and clock inputs for each counter
- 8-CH TTL digital outputs and up to 16-CH TTL digital inputs

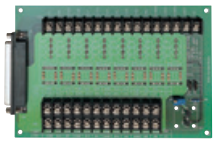


# Termination Boards

## ACLD-8125

**Termination Board with a 37-pin D-sub Connector and One Cold Junction Temperature Sensor**

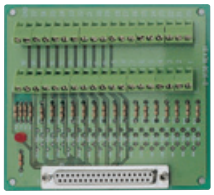
- One on-board temperature sensor for cold-junction compensation
- Jumper selectable sensor outputs in either DI or SE mode
- On-board calibration for the temperature sensor
- On-board 37-pin D-sub female connector
- Reliable screw clamp termination blocks
- Shipped with one 1-meter ACL-10137 cable
- Dimensions: 168 mm x 114 mm



## ACLD-9138

**General-Purpose Termination Board with a 37-pin D-sub Connector**

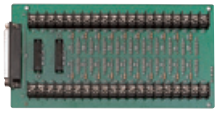
- On-board 37-pin D-sub female connector
- Blank RC circuits for analog input boards
- Reliable screw clamp termination blocks
- Shipped with one 1-meter ACL-10237 cable
- Dimensions: 103 mm x 114 mm



## ACLD-9188

**General-Purpose Termination Board with Two 20-pin Ribbon Connectors and One 37-pin D-sub Connector**

- On-board 20-pin ribbon male connector x 2
- On-board 37-pin D-sub female connector
- Reliable screw clamp termination blocks
- Shipped with two 1-meter ACL-10120 cables
- Dimensions: 222 mm x 114 mm



## ACLD-9881

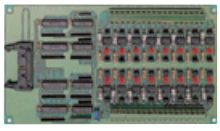
**General-Purpose Termination Board with One 37-pin D-sub Connector for PCI-9113A and ACL-8113A**

- For use with PCI-9113A and ACL-8113
- On-board 37-pin D-sub female connector
- Reliable screw clamp termination blocks
- Shipped with one 1-meter ACL-10137 cable
- Dimensions: 222 mm x 105 mm

## ACLD-9182A

**Termination Board with 16-CH Isolated Digital Inputs**

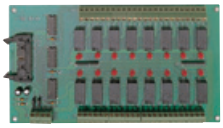
- 16-CH opto-isolated digital inputs
- For use with 20-pin ribbon digital input connector of NuDAQ cards
- Non-polarity digital input range
- Isolated input voltage up to 24 V
- 5000 $V_{RMS}$ optical isolation
- Jumper selectable for voltage input or dry-contact input mode
- LED indicator for input status
- Screw terminals for easy field wiring



## ACLD-9185

**Termination Board with 16-CH Relay Outputs**

- 16-CH single-pole, double-throw (SPDT form C) relay outputs
- For use with 20-pin digital input connector of NuDAQ cards
- Maximum switching voltage up to 60 $V_{DC}$/120 $V_{AC}$
- Maximum switching current up to 1 $A_{DC/AC}$
- On-board relay driver circuitry
- LED indicators for relay status
- Screw terminals for easy field wiring



## DIN-100S

**Terminal Board with one 100-pin SCSI-II connector and DIN-rail mounting**

- General purpose termination board for 100-pin SCSI-II cable
- On-board connector type: female 100-pin SCSI-II
- Shipped with 1-meter ACL-102100 cable
- Dimensions: 158 mm x 120 mm x 52 mm (WxLxH)

## DIN-50S

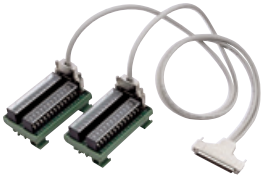
**Terminal Board with one 50-pin SCSI-II connector and DIN-rail mounting**

- General purpose termination board for 50-pin SCSI -II cable
- On-board connector type: female 50-pin
- Plastic cover for protection of wiring
- Shipped with 1-meter ACL-10250 cable
- Dimension: 125 mm x 85 mm x 50 mm (WxLxH)

## DIN-502S

**Two pieces of DIN-50S**

- Split 100 signals of 100-pin SCSI-II connector to two DIN-50S sockets
- Shipped with 1-meter ACL-10252 cable
- Dimension: 125 mm x 85 mm x 50 mm (WxLxH)



## DIN-50P

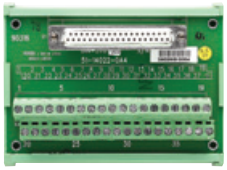
**Terminal Board with one 50-pin ribbon connector and DIN-rail mounting**

- General purpose termination board for 50-pin ribbon flex cable
- Shipped with 1.5-meter ACL-10150-1.5 cable
- Dimension: 146 mm x 85 mm x 55 mm (WxLxH)

## DIN-37D

**Terminal Board with one 37-pin D-Sub connector and DIN-rail mounting**

- General purpose termination board for D-type 37-pin cable
- On-board connector type is female 37-pin
- Shipped with 1-meter ACL-10137-1 cable
- Dimension: 113 mm x 85 mm x 52 mm (WxLxH)



## DIN-20P

**Terminal Board with one 20-pin ribbon connector and DIN-rail mounting**

- General purpose termination board for 20-pin ribbon flex cable
- Shipped with 1-meter ACL-10120-1 cable
- Dimension: 68 mm x 85 mm x 55 mm (WxLxH)

## DIN-68S/1M, DIN-68S/1S

**Terminal Board with one 68-pin SCSI-II connector and DIN-rail mounting**

- General purpose termination board for 68-pin SCSI-II cable
- Shipped with 1-meter ACL-10568-1 cable in DIN-68S/1M
- Shipped with 1-meter ACL-10569-1 cable in DIN-68S/1S
- Dimension: 103 mm x 85 mm x 43 mm (WxLxH)

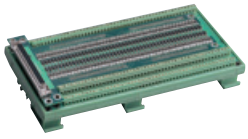
DIN-68S/1M

DIN-68S/1S

## DIN-96DI

**96-CH Isolated DI Terminal Board with DIN-Rail Mounting**

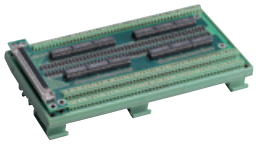
- 96-CH isolated digital inputs
- For use with PCI-7396
- Isolated input voltage up to 24V
- 2500$V_{RMS}$ optical isolation
- On-board connector type: female 100-pin SCSI-II
- Shipped with 1-meter ACL-102100 cable
- Dimension: 226 mm x 121 mm x 48 mm (WxLxH)



## DIN-96DO

**96-CH Isolated DO Terminal Board with DIN-Rail Mounting**

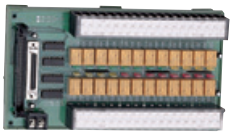
- 96-CH isolated digital outputs
- For use with PCI-7396
- Sink current up to 500mA on each isolated output
- 2500$V_{RMS}$ optical isolation
- On-board connector type: female 100-pin SCSI-II
- Shipped with 1-meter ACL-102100 cable
- Dimension: 226 mm x 121 mm x 48 mm (WxLxH)



## DIN-24R/TB-24R

**Terminal Board with 24-CH Relay Outputs**

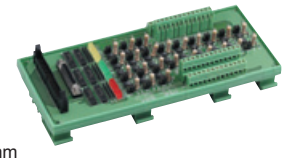
- 24-CH single-pole, double-throw (SPDT form C) relay outputs
- 50-pin Opto-22 compatible connector
- Maximum switching voltage up to 220$V_{DC}$/250$V_{AC}$
- Maximum switching current up to 2A $_{DC/AC}$
- LED indicator for relay status
- DIN socket available on DIN-24R
- Dimension: DIN-24R: 203 mm x 120 mm x 55 mm (WxLxH) TB-24R: 220 mm x 132 mm x 15 mm (WxLxH)



## DIN-24P/TB-24P

**Terminal Board with 24-CH Opto-Isolated Digital Inputs**

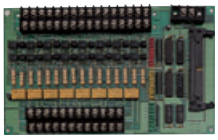
- 24-CH isolated digital inputs
- 50-pin Opto-22 compatible connector
- Isolated input voltage up to 24V
- 2500$V_{RMS}$ optical isolation
- LED indicator for input status
- Jumper selectable for voltage input mode or dry contact input mode
- Dimension: DIN-24P: 259 mm x 121 mm x 55 mm (WxLxH) TB-24P: 220 mm x 132 mm x 23 mm (WxLxH)



## TB-16P8R

**Terminal Board with 16-CH Isolated DI & 8-CH Relay Outputs**

- 16-CH isolated digital input and 8-CH SPDT relay outputs
- 2500$V_{RMS}$ optical isolation
- Maximum switching voltage up to 220$V_{DC}$/250$V_{AC}$
- Maximum switching current up to 2A $_{DC/AC}$
- LED indicator for relay status
- 50-pin male mating connector
- Dimension: 132mm x 220mm x 22mm (WxLxH)



## DIN-24G

**Terminal Board for 24-CH Grayhill I/O Modules**

- Supports standard or miniature G5 size modules
- Termination board for installing Grayhill I/O modules
- Up to 24 modules
- Port configurable as input or output on 8-CH basis
- Dimension: 371mm x 126mm x 49mm (WxLxH)

## ACL-10120-1/2
20-Pin Flat Cable,1M/2M

## ACL-10232
9-Pin D-sub (RS-232) male/female Cable, 5M

## ACL-10137 MF
37-Pin D-sub male/female Cable,1M
(for ACLD-9137)

## ACL-10337
Two 20-Pin header to 37-Pin D-sub PC back panel

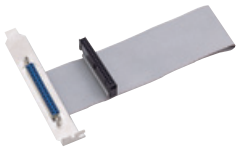
## ACL-10150-1.5
50-Pin Flat Cable,1.5M

## ACL-10220-1/2
20 Pin Shielded & Grounded Cable,1M/2M

## ACL-10137-1/2
37-Pin D-sub male/male Cable,1M/2M

## ACL-10237-1
37-Pin D-sub male/male flat Cable,1M

## ACL-10437
40-Pin header to 37-Pin D-sub PC back panel
(for ACL-7225,PCI-7200)



## ACL-10250
50-Pin SCSI-II Cable
(Mate with AMP-787082-5, 1M, 2M, 3M)

## ACL-102100
100-Pin SCSI-II Cable (Mate with AMP-787082-9)

## ACL-10253
100-Pin to 2x50-Pin Cable (for PCI-7348 to DIN-24P/R)

## ACL-10537
37-Pin D-sub Assembly

## ACL-10550
50-Pin SCSI-II Assembly

## ACL-10262
62-Pin D-sub male/female cable

## SMB-BNC-1M
1-Meter SMB to BNC Cable

## ACL-10252
100-Pin to 2x50-Pin Cable (for DIN-502S)

## ACL-10568-1
68-Pin SCSI-VHDCI Cable (for DAQ-2000 Series)
(Mate with AMP-787082-7)

## ACL-105100
100-Pin SCSI-II Assembly

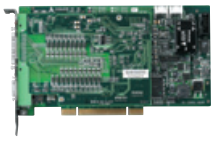
## ACL-10569-1
68-Pin SCSI-II Cable (Mate with AMP-787082-7)

## SMB-SMB-1M
1-Meter SMB to SMB Cable

## PCI-8372+

**SSCNet II 12-Axis Serial-Connection Motion Control Card**

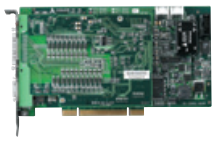
- Servo Interface: SSCNET II protocol
- On Board DSP: TI TMS320C6711 200MHz
- Maximum control axes: 12
- 32-bit command resolution
- On-line servo tuning and data monitoring
- Easy wiring up to 30 meters
- 2 Isolated DI/DO and 6 TTL digital outputs



## PCI-8366+

**SSCNet II 6-Axis Serial-Connection Motion Control Card**

- Servo Interface: SSCNET II protocol
- On Board DSP: TI TMS320C6711 200MHz
- Maximum control axes: 6
- 32-bit command resolution
- On-line servo tuning and data monitoring
- Easy wiring up to 30 meters
- 2 Isolated DI/DO and 6 TTL digital outputs



## PCI-8158

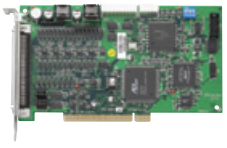
**Advanced 8-Axis Stepping & Servo Motion Control Card**

- Pulse output rate up to 6.55MHz
- Pulse output options: OUT/DIR, CW/CCW
- 2~4 axes linear interpolation
- 2 axes circular interpolation
- Multi-axis continuous interpolation
- Position/speed change on-the-fly
- 13 home return modes and auto home search

## PCI-8164

**Advanced 4-Axis Stepping & Servo Motion Control Card**

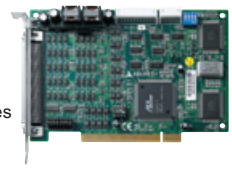
- Pulse output rate up to 6.55 MHz
- Pulse output options: OUT/DIR, CW/CCW
- 2-4 axes linear interpolation
- 2 axes circular interpolation
- Multi-axis continuous interpolation
- Position/speed change on-the-fly
- 13 home return modes including auto searching



## PCI-8134

**4-Axis Stepper & Servo Motion Control Card**

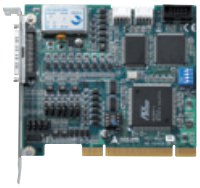
- Pulse output rate up to 2.4MHz
- Pulse output options: OUT/DIR, CW/CCW
- 2 axes linear interpolation
- Programmable acceleration and deceleration time
- Trapezoidal and S-curve velocity profiles
- Easy interface to any stepping motors, AC or DC servo, linear or rotary motors
- 28-bit up/down counter for incremental encoder



## PCI-8102

**Advanced 2-Axis Stepping & Servo Motion Control Card**

- 2-axis linear/circular interpolation
- Continuous interpolation
- Position/speed change on-the-fly
- 13 home return modes and auto home search
- Hardware position compare
- High speed position latch function
- Programmable acceleration and deceleration time



## PCI-8132

**2-Axis Stepper & Servo Motion Control Card**

- Pulse output rate up to 2.4MHz
- Pulse output options: OUT/DIR, CW/CCW
- 2 axes linear interpolation
- Programmable acceleration and deceleration time
- Trapezoidal and S-curve velocity profiles
- Easy interface to any stepping motors, AC or DC servo, linear or rotary motors which have pulse train input mode
- 28-bit up/down counter for incremental encoder

## PCI-8136

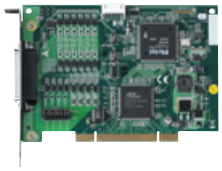
**6-CH Quadrature Encoder and Multi-Function I/O Card**

- 6-CH 32-bit industrial counter for three kinds of differential pulse trains, including A/B phase, CW/CCW, and Pulse/Direction
- 6-CH differential pulse generators up to 500KHz
- 6-CH 32-bit position compare with interrupt function
- 6-CH 16-bit +/- 10V analog output
- 6-CH 12-bit 133KHz analog single-ended input
- 19-CH opto-isolated DI, 7-CH open collector DO
- Digital I/Os and counters are 2500$V_{DC}$ opto-isolated

## PCI-8124

**4-CH Trigger Board**

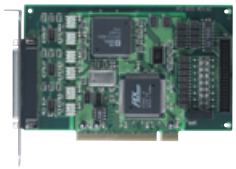
- Card index switch selection
- Four 32-bit encoder input and trigger output channels
- Encoder input frequency: Up to 5MHz
- Trigger output frequency: Up to 1MHz
- Encoder input interface: OUT/DIR, CW/CCW, and 1x, 2x, 4x A/B phase
- Input / output circuit source can be selectable: TTL/ Open Collector (with isolation)
- Four 32-bit comparators where source can be configurable



## PCI-8133

**3-CH Quadrature Encoder and 3 PWM Output Card**

- Three 16-bit counters
- Counters for quadrature AB-phase encoder or general purpose up/down counter
- On-board 5000$V_{RMS}$ isolation circuits and digital de-glitch filters for every encoder input signal
- Programmable frequency for digital de-glitch filter
- Three PWM waveform generators
- 12-bit PWM signal resolution
- Isolated general purpose 8 DI & 8 DO



## Angelo PCI-MPG24

**4 Channels MPEG4 Hardware Real-Time Video Compression Card**

- 4-Channel MPEG4 hardware video encoder
- Real-time Full D1* video encoding up to 120fps
- Supports real-time video raw data preview
- On-board 64MB SDRAM memory buffer
- On-board TTL I/O lines
- Build-in watchdog timer
- Security protection circuit
- Supports Microsoft® DirectX®

## Angelo RTV-24

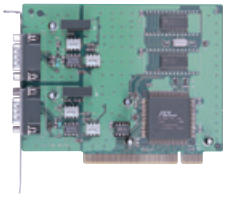
**4 Channels Real-time Video Capture Board for Standard Cameras**

- Four color video digitizers operating in parallel
- Up to 120fps in 32-bit, 33MHz/66MHz PCI bus
- Color (PAL / NTSC), monochrome (CCIR / EIA) camera
- Up to 16 channels extension
- On-board TTL I/O lines
- Built-in watchdog timer
- Protection circuit for security issue
- User Friendly ViewCreator utility
- Software trigger support

## PCI-7841

**Dual-port Isolated CAN Interface Card**

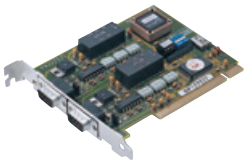
- Two independent CAN network operation
- Up to 1Mbps programmable transfer rate
- 16MHz CAN controller frequency
- 2500$V_{RMS}$ isolation protection
- Direct memory mapping to the CAN controllers
- Powerful master interface for CAN bus protocols
- PCI bus plug and play
- Support Windows NT/2000/XP and Linux operation system



## C422/C485

**Industry Intellignt 2/4-Port RS-422/485 Communications Cards**

- PCI Rev 2.1 plug and play
- 2 / 4 serial communications ports with intelligent buffer
- Support isolated RS-422 or RS-485 interface port
- Support up to 2 cards per system
- Suitable for modems, data display, data collection,
- telecommunication and industry control
- Support Windows NT/95/98/2000/XP and Linux operation system
- Compact size, cost effective



## C518/C514

**Industry 8/4-Port Serial Communications Cards**

- PCI Rev 2.1 plug and play
- 4/8 serial communications ports
- Suitable for modems, data display, data collection,
- telecommunication and industry control
- Support one isolated RS-422 or RS-485 interface port
- Support up to 8 cards per system
- Support Windows 95/98/NT/2000/XP and Linux operation system

## C588/C584

**Industry Intelligent 8/4-Port Serial Communications Cards**

- PCI Rev 2.1 plug and play
- 4/8 serial communications ports
- Suitable for modems, data display, data collection, telecommunication
- and industry control
- Support up to 2 cards per system and Jumper-less, easy to configure
- Optional isolated RS-422/485 interface for each port independently
- Support Windows NT/95/98/2000/XP and Linux operation system

## ND-8511(D)

**Serial to Ethernet Data Converter**

- 48MHz, 186-Based Controller
- Auto sensing 10/100Base-T Ethernet
- High speed serial port (up to 230kbps) with hardware and modem flow controls
- 3 digital I/O pins (software selectable, shared with serial port signal)
- Compact size for easy integration
- TCP/IP, UDP, DHCP, SNMP, Telnet, ARP, ICMP, and TFTP Protocol Support
- E-Mail function (send only)
- Support for flow & modem control signals

## ND-6510

**RS-422/RS-485 Repeater**

- Input
  - RS-422 (4-wire, full-duplex)
  - RS-485 (2-wire, half-duplex) protocol
- Output
  - RS-422 (4-wire, full-duplex)
  - RS-485 (2-wire, half-duplex) protocol
- Speed: 115.2k, 57.6k, 38.4k, 19.2k, 9600, 4800, 2400, 1200
- Auto baud rate and data format adjustment
- Isolation Voltage: 2500$V_{RMS}$

## ND-6520

**RS-232 to RS-422/485 Converter**

- Protocol
  - RS-422 (4-wire, full-duplex)
  - RS-485 (2-wire, half-duplex) protocol
- Speed: 115.2k, 38.4k, 19.2k, 9600, 4800, 2400, 1200
- Auto baud rate and data format adjustment
- Isolation Voltage: 2500$V_{RMS}$
- Repeater request: Over 128 modules or distance over 4000 feet

## ND-6530

**USB to RS-422/RS-485 Converter**

- Protocol (DIP switch selectable)
  - RS-232 (5-wire: RXD, TXD, RTS, CTS, GND)
  - RS-422 (4-wire: TX+, TX-, RX+, RX-)
  - RS-485 (2-wire: Data+, Data-)
- Speed: 1200~115.2k bps
- Isolation Voltage: 2500$V_{RMS}$
- Fully USB compliant
- Repeater request: Over 128 modules or distance over 4000 feet

## ND-6531

**Configurable Communication Controller**

- Protocol (DIP switch selectable)
  - RS-232 (5-wire: RXD, TXD, RTS, CTS, GND)
  - RS-422 (4-wire: TX+, TX-, RX+, RX-)
  - RS-485 (2-wire: Data+, Data-)
- Speed: 1200 ~ 115200 bps (RS-232 and RS-422/485 can be set to different baud rate)
- Convert RS-422/485 to RS-232 with configurable address

## ND-6013

**3-CH RTD Input Module**

- Channels: 3
- Input Type: Pt-100, Ni-100 or Ni-120 RTD
- Isolation Voltage: 2500$V_{RMS}$
- Sampling Rate: 10 Samples / sec
- Input Wiring: 2, 3 or 4 wires

## ND-6017

**8-CH Analog Input Module**

- Channels: 6 Differential & 2 Single-ended
- Input Type: mV, V and mA
- Input Range: ±150 mV, ±500 mV, ±1 V, ±5 V, ±10 V
- Current Range: ±20 mA
- Isolation Voltage: 2500$V_{RMS}$

## ND-6018

**8-CH Thermocouple Input Module**

- Channels: 6 Differential & 2 Single-ended
- Input Type: Thermocouple, mV, V and mA
- Thermocouple Type: J, K, T, E, R, S, B, N,C
- Voltage Range: ±15 mV, ±50 mV, ±100 mV, ±500 mV, ±1 V, ±2.5 V
- Current Range: ±20 mA
- Isolation Voltage: 2500$V_{RMS}$

## ND-6021

**Analog Output Module**

- Voltage Output: 0-10 V
- Current Output: 0-20 mA, 4-20 mA
- Output Isolation: 5000$V_{RMS}$
- Resolution: 12-bit resolution
- Accuracy:
  - ±0.1% of FSR (current)
  - ±0.2% of FSR (voltage)

## ND-6056

**Isolated Digital Output Module**

- Channels: 15 bits digital open collector output with common ground
- Isolation Voltage: 5000$V_{RMS}$
- Switching Level: with 24 V common power
  - Low (0): 22 V min.
  - High (1): 0-22 V
- Programmable input polarity

## ND-6024
**4-CH Analog Output Module**

- Channels: 4
- Voltage Output: -10 V to 10 V
- Output Isolation: 5000$V_{RMS}$
- Resolution: 12-bit resolution
- Accuracy: ±1/2 LSB
- 7 TTL digital input

## ND-6050
**Digital I/O Module**

- Interface: RS-485
- 7 TTL digital inputs
- 8 open collector DO
- Output up to 30V, 30mA max. load
- Programmable input polarity

## ND-6052
**Isolated Digital Input Module**

- Channels: 8 DI
  - 6 fully independent isolated
  - 2 isolated with common ground
- Isolated Voltage: 5000 VRMS
- Programmable input polarity

## ND-6053
**16-CH Digital Input Module**

- Channels: 16 DI
- Dry Contact
  - Logical 0: close to GND
  - Logical 1: open
  - Effective distance: 500m
- Wet Contact
  - Logical level 0: +2V (max)
  - Logical level 2: +4V~+30V
- Programmable input polarity

## ND-6054
**Isolated Digital Output Module**

- Channels: 15 bits digital input with 24V external common power
- Isolation Voltage: 5000 VRMS
- Switching Level
  - Low (0): 1V (max.)
  - High (1): 3.5V~24V
- Programmable input polarity

## ND-6058
**28-CH PPI Module**

- 8255 programmable peripheral interface mode 0 emulation
- Channel: 24
- Input Signal
  - Logical level 0: -0.5~0.8V
  - Logical level 1: 2.0~5.25V
- Internal Pull-Up Resistor: 10kΩ
- Maximum Current: 0.5mA
- Output Signal
  - Logical level 0: 0.5V max.
  - Logical level 1: 2.4V min.

## ND-6060
**Relay Output & Digital Input Module**

- 4-CH relay outputs
- Output Type: 2 form C and 2 form A
- Contact Rating
  - AC: 0.6 A / 125 V or 0.3 A / 250 V
  - DC: 2 A / 30 V or 0.6 A / 110 V
- Common External Voltage: 24 V or GND
- Input Type: switch or transistor

## ND-6063
**8-CH Relay Output Module**

- 8-CH relay outputs
- Output Type: 8 Form A
- Contact Rating:
  - AC: 0.5 A / 125 V
  - DC: 1 A / 30 V or 0.3 A / 110 V
  - ON/OFF Interval Time: 3 ms
- Internal Insulation Resistance: 1000MΩ@500VDC

## ND-6067
**8-CH AC Relay Output Module**

- Interface: RS-485, 2 wires
- Output Type: 8 form A
- Contact Rating:
  - AC 3 A / 250 V
  - DC 3 A / 30 V
- ON/OFF time interval: 6ms
- Insulation Resistance: 1000 MΩ minimum (at 500 VDC)

## ND-6080
**2-CH Counter/Frequency Input Module**

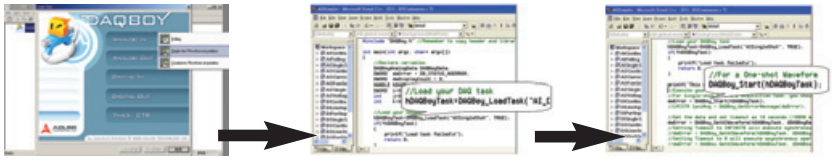
- Channels: 2 independent 32-bit counter
- Input Frequency: 100 kHz max.
- Isolation Voltage: 5000$V_{RMS}$
- Input Pulse Width: > 5 μs sec
- Max. Count: 4294967295 (32-bit)
- Programmable Digital Noise Filter: 4 μs to 1.02 ms
- Alarm: alarm comparator on each counter

## DAQBOY

### Revolutionary Task-Oriented DAQ Driver with Intuitive Wizard Assistant

- DAQ driver with graphical interface assistance for programmers
  - Task-oriented, write your program in 3 minutes
  - Intuitive DAQBOY Wizard, design your DAQ task in 30 seconds
- Supports 98/NT/2000/XP/2003
- Supports VB/VC/Delphi/BCB
- Supports full lines of ADLINK data acquisition cards
- Supports complete hardware functions of ADLINK data acquisition cards
- Provides two ways to program
  - DAQBOY API
  - DAQBOY ActiveX control

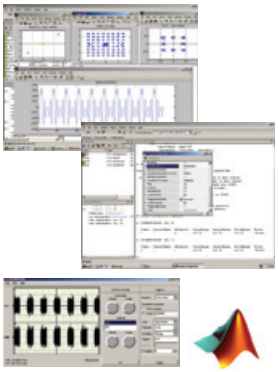
300 times faster for your DAQ programming



Create a DAQ task | Load the task | Execute it !

## DAQ-MTLB for MATLAB®

### MATLAB® Data Acquisition Toolbox Adapter for ADLINK DAQ Cards

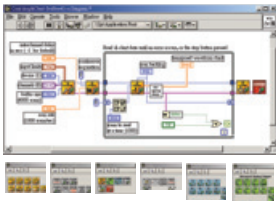


- MATLAB® Data Acquisition Toolbox 2.2 (or above) compliant
- Access live, measured data directly in MATLAB®
- Provides 100kS/s to 65MS/s, 12-bit to 16-bit data acquisition capability
- Supports a full range of ADLINK data acquisition cards
- Provides complete hardware trigger capability
- Supports analog input, analog output, and digital I/O

* ADLINK is the MathWorks Connections Program Partner.

## DAQ-LVIEW PnP for LabVIEW™

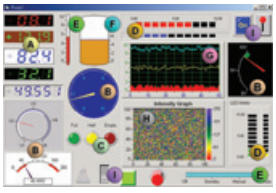
### LabVIEW™ Data Acquisition VI Set for ADLINK Data Acquisition Cards



- LabVIEW-comptiable VIs for data acquisition
- Supports a full range of ADLINK data acquisition cards
- Drop-in replacement for NI-DAQ VIs
- Supports complete hardware capabilities of ADLINK data acquisition cards
- Supports Windows 98/NT/2000/XP
- Ample LabVIEW example programs provided

## DAQBench

### 32-Bit ActiveX Controls for Measurement and SCADA/HMI



| | |
|---|---|
| A | 7-segment control for numeric numbers |
| B | Gauge and knob control for voltage, pressure, and etc. |
| C | Indicator control for ON/OFF status |
| D | LEDMeter control for signal level and equalizer |
| E | Slide control for continues and discrete values |
| F | Tank control for liquid level |
| G | Graph control for any waveform or analog data |
| H | IntenstyGraph control for thermal image or any (x, y, z) data |
| I | Switch control for ON/OFF control |

***DAQBench Features***

- 32-bit ActiveX controls support Windows 98/NT/2000/XP
- Easily programm in VB, VC++, Delphi, and C++ Builder
- User-friendly property page interface for interactive configuration

***DAQBench for Measurement***

- Plenty of user interface controls including graph, chart, meter, knob, button, switch, slide, and 7 segment display
- Powerful analysis controls including statistics, vector, complex, matrix and FFT
- Integration controls for integrating your data with Excel, Databases, etc.

***DAQBench for SCADA/HMI***

- A smart tag server for automatically data gathering, data logging, and alarm generating
- Support any kind of hardware device via OPC standards
- Distinctive controls for SCADA/HMI application including real-time trend, historical tread, alarm display, report generating, and industrial
- Support Mitsubishi PLCs, Omron PLCs, AB PLCs, Modbus/TCP, and M-System in DAQBench 2.4 package
- No limitation on tag number

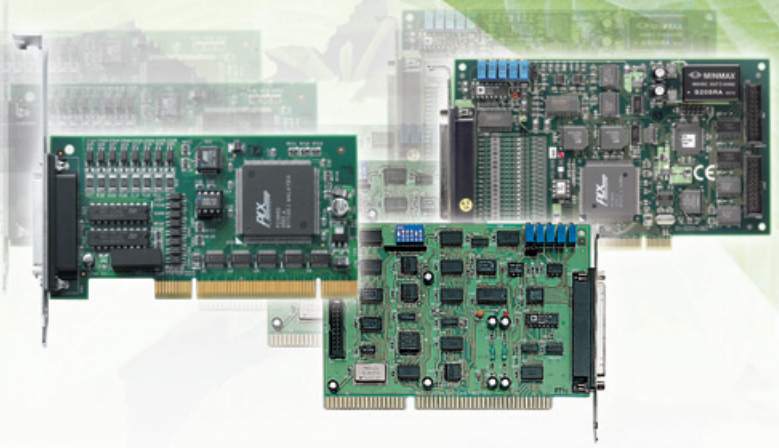
## DAQCreator

### Smart & Easy-to-Use Data Acquisition System Creator

- No programming necessary
- Acquire & display data with just a few mouse clicks
- High-speed data recording capability
- Real-time FFT and spectrum display
- Supports concurrent execution for multiple DAQ cards
- Smart Wizard for DAQ cards & data/spectrum view settings
- Export acquired data to
  - Normal text file (.txt)
  - Excel file (.csv)

* MATLAB® is a registered trademark of MathWorks, Inc.
* LabVIEWTM is a registered trademark of National Instruments, Inc.

# ADLINK industrial I/O modules are now RoHS-Compliant and ready for delivery



ADLINK GREEN RoHS Compliant

The seal of our Commitment to fulfill our social responsibility of protecting the environment

## ADLINK leads the way in providing a complete line of RoHS-Compliant PCI interface industrial I/O products

| Model Number | Description | Model Number | Description |
|---|---|---|---|
| PCI-9111DG(G) | 16-CH 12-Bit 100kS/s | PCI-7248(G) | 48-CH Opto-22 Compatible DIO |
| PCI-9111HR(G) | 16-CH 16-Bit 100kS/s DAQ | PCI-7296(G) | 96-CH Opto-22 Compatible DIO |
| ACL-8111(G) | 8-CH 12-Bit 50kS/s DAQ | ACL-7130(G) | Isolated 16-CH DI 16-CH DO |
| PCI-7230(G) | Isolated 16-CH DI & 16-CH DO | ACL-7122(G) | 144-CH Opto-22 Compatible DIO |
| LPCI-7230(G) | Isolated 16-CH DI & 16-CH DO | PCI-7200(G) | 12MB/s 32-CH DI 32-CH DO |
| PCI-7234(G) | Isolated 32-CH DO | PCI-7250(G) | 8-CH Relay Outputs 8-CH Isolated DI |
| PCI-7432(G) | Isolated 32-CH DI & 32-CH DO | LPCI-7250(G) | 8-CH Relay Outputs 8-CH Isolated DI |
| PCI-7433(G) | Isolated 64-CH DI | PCI-7256(G) | 16-CH Latching RO 16-CH Isolated DI |
| PCI-7434(G) | Isolated 64-CH DO | PCI-7258(G) | 32-CH PhotoMos RO 2-CH Isolated DI |
| PCI-7224(G) | 24-CH Opto-22 Compatible DIO | PCI-8554(G) | 10-CH Timer/Counter 8-CH DIO |
| PCI-7234P(G) | Isolated 32-CH DO with Source Current Transistors | PCI-7432HIR(G) | Isolated 32-CH DI & 32-CH DO with High Input Range |
| PCI-7433HIR(G) | Isolated 64-CH DI with High Input Range | PCI-7396(G) | 96-CH High Driving DIO |

## RoHS version on the road, call for availability

| Model Number | Description | Model Number | Description |
|---|---|---|---|
| LPCI-9112 | 16-CH 12-Bit 110kS/s DAQ for Low-Profile PCI | ACL-6128A | 2-CH 12-Bit Isolated Analog Output |
| ACL-8112PG | 16-CH 12-Bit 100kS/s DAQ for ISA | PCI-7260 | 8-CH High-Power Relay Output |
| ACL-8112DG | 16-CH 12-Bit 100kS/s DAQ for ISA | PCI-7233 | Isolated 32-CH DI |
| PCI-6308V | 8-CH 12-Bit Isolated Voltage Output | PCI-7300A | 80MB/s High-Speed DIO |

- More and more exciting ADLINK products will be certified RoHS-Compliant.
  To make sure that the ADLINK product you purchased is RoHS-Compliant, just look for the G after the model number.
- For more information of RoHS products, please visit our TM page ***http://www.adlinktech.com/TM/***

PXI Systems Alliance

**ADLINK, a sponsor member of the PXISA, designs and manufactures more than 300 analog/digital products for test, measurement & automation.**